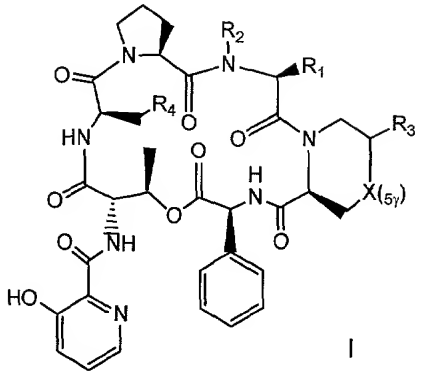
CLAIMS

30. A compound of formula I



I

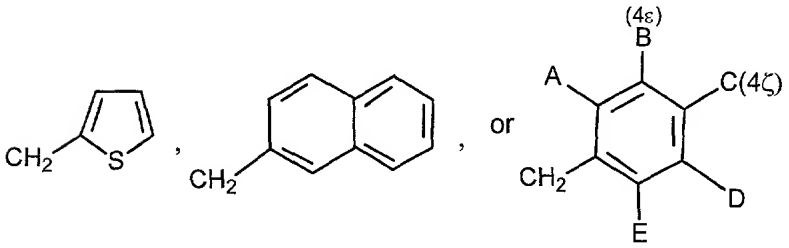
wherein:

- R_2 and R_4 are, independently of each other, a hydrogen atom or a methyl group;

- R_3 is a hydrogen atom or a hydroxyl group;

- X is a CO, CHOH or CH_2 group; and

- R_1 is:



wherein

- for meta derivatives:

A, C, D, and E each is a hydrogen atom, and B is:

- a halogen,

- a monoalkylamino or dialkylamino group,

- an ether group,

- a thioether group,

- a C_1 to C_3 alkyl group, or

- a trihalogenomethyl group,

- for para derivatives:

A, B, D, and E each is a hydrogen atom, and C is:

- a halogen,

- an NR_1R_2 group, wherein R_1 and R_2 each is, independently of one another, a group selected from

- hydrogen,

- a straight-chain or branched C_1 to C_4 alkyl group wherein if one of the substituents R_1 or R_2 is a methyl group, the other necessarily is an ethyl group,

- an alkyl-cycloalkylmethyl group, wherein said cycloalkyl is a C_3 to C_4 cycloalkyl,

- a substituted or unsubstituted C_3 to C_4 cycloalkyl group,

- a straight-chain or branched C_2 to C_4 alkenyl group, wherein if one of the substituents R_1 to R_2 is an alkenyl group, the other is not a methyl group and is not a C_3 to C_6 cycloalkyl group,

- a substituted or unsubstituted N-pyrrolidinyl group,

- an ether group,

- a thioether group,

- an acyl or alkoxycarbonyl group,

- a C_1 to C_6 alkyl group, wherein said alkyl group is straight-chain or branched,

- an alkythiomethyl group,

- an aryl group,

or

- a trihalogenomethyl group, and

- for meta-para disubstituted derivatives:

A, D, and E each is a hydrogen atom, and B is:

- a halogen,

- a monoalkylamino or dialkylamino group,

- an ether group

- a thioether group,

- a C_1 to C_3 alkyl group, and

C is:

- a halogen,

- an amino, monoalkylamino or dialkylamino group, with the proviso that B is not a bromine atom, a chlorine atom, or a substituted or unsubstituted allyl group,

- an ether group,

- a thioether group,

- a C_1 to C_6 alkyl group, or

- a trihalogenomethyl group, and

- for ortho-para disubstituted derivatives:

B, E, and D each is a hydrogen atom, and A and C each is a methyl group.

31. (New) A compound according to claim 30, wherein said compound is at least one of:

4ζ-methylthio-de(4ζ-dimethylamino)pristinamycin I_λ;

4ζ-methyl-de(4ζ-dimethylamino)pristinamycin I_λ;

4ζ-methoxy-de(4ζ-dimethylamino)pristinamycin I_λ;

4ζ-methoxycarbonyl-de(4ζ-dimethylamino)pristinamycin I_λ;

4ζ-chloro-de(4ζ-dimethylamino)pristinamycin I_λ;

4ζ-bromo-de(4ζ-dimethylamino)pristinamycin I_λ;

4ζ-iodo-de(4ζ-dimethylamino)pristinamycin I_λ;

4ζ-trifluoromethyl-de(4ζ-dimethylamino)pristinamycin I_λ;

4ζ-tert-butyl-de(4ζ-dimethylamino)pristinamycin I_λ;

4ζ-isopropyl-de(4ζ-dimethylamino)pristinamycin I_λ;

4ε-methylamino-de(4ζ-dimethylamino)pristinamycin I_λ;

4ζ-ethylamino-de(4ζ-dimethylamino)pristinamycin I_λ;

4ζ-diethylamino-de(4ζ-dimethylamino)pristinamycin I_λ;

4ζ-allylamino-de(4ζ-dimethylamino)pristinamycin I_λ;

4ζ-diallylamino-de(4ζ-dimethylamino)pristinamycin I_λ; and

4ζ-allylethylamino-de(4ζ-dimethylamino)pristinamycin I_λ.

32. A compound according to claim 30, wherein said compound is at least one of:

4ζ-ethylpropylamino-de(4ζ-dimethylamino)pristinamycin I_λ;

4ζ-ethylisopropylamino-de(4ζ-dimethylamino)pristinamycin I_λ;

4ζ-ethylmethylcyclopropylamino-de(4ζ-dimethylamino)pristinamycin I_λ;

4ζ-(1pyrrolidinyl)-de(4ζ-dimethylamino)pristinamycin I_λ;

4ζ-trifluoromethoxy-de(4ζ-dimethylamino)pristinamycin I_λ;

4ζ-allyloxy-de(4ζ-dimethylamino)pristinamycin I_λ;

4ζ-ethoxy-de(4ζ-dimethylamino)pristinamycin I_λ;

4ζ-ethylthio-de(4ζ-dimethylamino)pristinamycin I_λ;

4ζ-methylthiomethyl-de(4ζ-dimethylamino)pristinamycin I_λ;

4ζ-(2-chloroethoxy)-de(4ζ-dimethylamino)pristinamycin I_λ;

4ζ-acetyl-de(4ζ-dimethylamino)pristinamycin I_λ;

4ζ-ethyl-de(4ζ-dimethylamino)pristinamycin I_λ;

4ε-dimethylamino-de(4ζ-dimethylamino)pristinamycin I_λ;

4ε-methylthio-de(4ζ-dimethylamino)pristinamycin I_λ; and

4ε-ethoxy-de(4ζ-dimethylamino)pristinamycin I_λ.

33. A compound according to claim 30, wherein said compound is at least one of:

4ζ-methylthio-de(4ζ-dimethylamino)pristinamycin I_H;

5γ-hydroxy-4ζ-methylthio-de(4ζ-dimethylamino)pristinamycin I_H;

4ζ-methyl-de(4ζ-dimethylamino)pristinamycin I_H;

4ζ-bromo-de(4ζ-dimethylamino)pristinamycin I_H;

4ζ-iodo-de(4ζ-dimethylamino)pristinamycin I_H;

4ζ-trifluoromethyl-de(4ζ-dimethylamino)pristinamycin I_H;

4ε-methoxy-de(4ζ-dimethylamino)pristinamycin I_H; and

4ζ-ethyl-de(4ζ-dimethylamino)pristinamycin I_H.

34. A compound according to claim 30, wherein said compound is at least one of:

4ζ-isopropyl-de(4ζ-dimethylamino)pristinamycin I_E;

4ε-methoxy-de(4ζ-dimethylamino)pristinamycin I_A;

4ε-fluoro 4ζ-methyl-de(4ζ-dimethylamino)pristinamycin I_A; and

4ζ-amino-de(4ζ-dimethylamino)pristinamycin I_A.

35. A compound, wherein said compound is at least one of:

4-trifluoromethoxyphenylalanine;

3-methylaminophenylalanine;

3-methylthiophenylalanine;

3-fluoro-4-methylphenylalanine;

4-methylaminophenylpyruvic acid;

3-ethoxyphenylalanine;

4-allylaminophenylalanine;

4-diallylaminophenylalanine;

4-allylethylaminophenylalanine;

4-ethylpropylaminophenylalanine;

4-ethylisopropylaminophenylalanine;

4-ethylmethylcyclopropylaminophenylalanine;

4-(1-pyrrolidinyl)phenylalanine;

4-ethylthiomethylphenylalanine;

4-O-(2-chloroethyl)tyrosine;

3-dimethylaminophenylalanine; and

3-ethylaminophenylalanine.

36. A pharmaceutical composition, comprising at least one compound according to claim 30 and at least one pharmaceutically acceptable excipient.

37. A pharmaceutical composition, comprising at least one compound according to claim 31 and at least one pharmaceutically acceptable excipient.

38. A pharmaceutical composition, comprising at least one compound according to claim 32 and at least one pharmaceutically acceptable excipient.

39. A pharmaceutical composition, comprising at least one compound according to claim 33 and at least one pharmaceutically acceptable excipient.

40. A pharmaceutical composition, comprising at least one compound according to claim 34 and at least one pharmaceutically acceptable excipient.

41. The pharmaceutical composition according to claim 36, further comprising a Group A streptogramin.

42. The pharmaceutical composition according to claim 37, further comprising a Group A streptogramin.

43. The pharmaceutical composition according to claim 38, further comprising a Group A streptogramin.

44. The pharmaceutical composition according to claim 39, further comprising a Group A streptogramin.

45. The pharmaceutical composition according to claim 40, further comprising a Group A streptogramin.

46. A method for producing a compound of claim 30, comprising adding at least one compound selected from:

4-trifluoromethoxyphenylalanine;

3-methylaminophenylalanine;

3-methylthiophenylalanine;

3-fluoro-4-methylphenylalanine;

4-methylaminophenylpyruvic acid;

3-ethoxyphenylalanine;

4-allylaminophenylalanine;

4-diallylaminophenylalanine;

4-allylethylaminophenylalanine;

4-ethylpropylaminophenylalanine;

4-ethylisopropylaminophenylalanine;

4-ethylmethylcyclopropylaminophenylalanine;

4-(1-pyrrolidinyl)phenylalanine;

4-ethylthiomethylphenylalanine;

4-O-(2-chloroethyl)tyrosine;

3-dimethylaminophenylalanine; and

3-ethylaminophenylalanine;

to growth medium of at least one *Streptomyces* species or mutant thereof;

growing said species or mutant thereof under conditions permitting the synthesis of said at least one compound; and

recovering said at least one compound.

47. The compound according to claim 30, wherein, for meta derivatives, B is fluorine.

48. The compound according to claim 30, wherein, for meta derivatives, B is a methyl or ethyl group.

49. The compound according to claim 30, wherein, for meta derivatives, B is a trifluoromethyl group.

50. The compound according to claim 30, wherein, for para derivatives, at least one of R_1 and R_2 is a methyl, isopropyl, or tert-butyl group.

51. The compound according to claim 30, wherein, for para derivatives, at least one of R_1 and R_2 is a trifluoromethyl group.

52. The compound according to claim 30, wherein, for meta-para disubstituted derivatives, B is fluorine.

53. The compound according to claim 30, wherein, for meta-para disubstituted derivatives, B is a methyl or ethyl group.

54. The compound according to claim 30, wherein, for meta-para disubstituted derivatives, C is fluorine.

55. The compound according to claim 30, wherein, for meta-para disubstituted derivatives, C is a methyl amino or diakylamino group, wherein at least one of the alkyl groups of the diakylamino group is a methyl group, and B is not a bromine atom, a chlorine atom, or a substituted or unsubstituted allyl group.

56. The compound according to claim 30, wherein, for meta-para disubstituted derivatives, C is a trifluromethyl group.

57. The compound according to claim 30, wherein, for para derivatives, at least one of R_1 and R_2 is a phenyl group.